

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 29

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte HANS REINHARDT and ROLF VOGT

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Appeal No. 2000-0210  
Application No. 08/893,906

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ON BRIEF

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Before ABRAMS, COHEN, and NASE, Administrative Patent Judges.  
NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the refusal of the examiner to allow claims 6 to 9, as amended subsequent to the final rejection. These claims constitute all of the claims pending in this application.

We AFFIRM-IN-PART.

BACKGROUND

The appellants' invention relates to a process for manufacturing a radial shaft-sealing ring. A copy of the claims under appeal is set forth in the appendix to the appellants' brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Marquette	1,519,547	Dec.
16, 1924		
Paykin	5,326,112	July 5,
1994		

Claim 9 stands rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 9 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Paykin.

Claims 6 to 8 stand rejected under 35 U.S.C. § 103 as being unpatentable over Paykin in view of Marquette.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejections, we make reference to the answer (Paper No. 28, mailed July 13, 1999) for the examiner's complete reasoning in support of the rejections, and to the brief (Paper No. 25, filed June 10, 1999) for the appellants' arguments thereagainst.

#### OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the determinations which follow.

#### **The enablement rejection**

We will not sustain the rejection of claim 9 under 35  
U.S.C. § 112, first paragraph.

Claim 9 on appeal reads as follows:

In a process for manufacturing a radial shaft-sealing ring comprising a sealing ring made of a polymeric material with sealing properties, whereby the sealing ring has at least one lip that rests on the shaft to be sealed and rests against a backing ring at the side not subject to pressure, whereby the sealing ring is permanently fastened to a reinforcing ring having an angle-shaped profile with a radially inward extending leg that at least partially overlaps and rests directly against the backing ring, the process including the steps of inserting both the reinforcing ring and the backing ring in a tool cavity, filling the remaining space in the tool cavity with a raw polymeric sealing material in the form of a liquid or paste, allowing the polymeric sealing material to solidify and bond to the reinforcing ring and removing the radial shaft-sealing ring from the cavity;

the improvement comprising the step of incorporating an anti-adhesive additive in the hard plastic material<sup>[1]</sup> of the backing ring to prevent the backing ring from attaching to the polymeric material that the sealing ring is made of.

The examiner's sole basis for this rejection (answer, p.  
3) is that "[t]he specification does not disclose suitable

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<sup>1</sup> While there is no antecedent basis in claim 9 for the phrase "the hard plastic material" we understand the claim as a whole as reciting that the backing ring is made from a hard plastic material which incorporates an anti-adhesive additive.

materials for use as the anti-adhesive to be added to the backing ring, nor is it disclosed how this anti-adhesive may be added."

The appellants argue (brief, p. 7) (1) that the specification clearly teaches that an anti-adhesive can be added to the polymer that the backing ring is made of, and (2) that a person skilled in the art would know to mix the anti-adhesive with the polymer before the backing ring is molded.

An analysis of whether the claims under appeal are supported by an enabling disclosure requires a determination of whether that disclosure contained sufficient information regarding the subject matter of the appealed claim as to enable one skilled in the pertinent art to make and use the claimed invention. The test for enablement is whether one skilled in the art could make and use the claimed invention from the disclosure coupled with information known in the art without undue experimentation. See United States v. Telectronics, Inc., 857 F.2d 778, 785, 8 USPQ2d 1217, 1223

(Fed. Cir. 1988), cert. denied, 109 S.Ct. 1954 (1989); In re Stephens, 529 F.2d 1343, 1345, 188 USPQ 659, 661 (CCPA 1976).

In making a rejection on the ground of nonenablement, the examiner has the initial burden to establish a reasonable basis to question the enablement provided for the claimed invention. See In re Wright, 999 F.2d 1557, 1561-62, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993) (examiner must provide a reasonable explanation as to why the scope of protection provided by a claim is not adequately enabled by the disclosure). A disclosure which contains a teaching of the manner and process of making and using an invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented must be taken as being in compliance with the enablement requirement of 35 U.S.C. § 112, first paragraph, unless there is a reason to doubt the objective truth of the statements contained therein which must be relied on for enabling support. Assuming that sufficient reason for such doubt exists, a rejection for failure to teach how to make and/or use will be

proper on that basis. See In re Marzocchi, 439 F.2d 220, 223, 169 USPQ 367, 369 (CCPA 1971). As stated by the court,

it is incumbent upon the Patent Office, whenever a rejection on this basis is made, to explain why it doubts the truth or accuracy of any statement in a supporting disclosure and to back up assertions of its own with acceptable evidence or reasoning which is inconsistent with the contested statement. Otherwise, there would be no need for the applicant to go to the trouble and expense of supporting his presumptively accurate disclosure.

In re Marzocchi, 439 F.2d at 224, 169 USPQ at 370.

Once the examiner has established a reasonable basis to question the enablement provided for the claimed invention, the burden falls on the appellants to present persuasive arguments, supported by suitable proofs where necessary, that one skilled in the art would be able to make and use the claimed invention using the disclosure as a guide. See In re Brandstadter, 484 F.2d 1395, 1406, 179 USPQ 286, 294 (CCPA 1973). In making the determination of enablement, the examiner shall consider the original disclosure and all evidence in the record, weighing evidence that supports

enablement<sup>2</sup> against evidence that the specification is not enabling.

Thus, the dispositive issue in this issue on appeal is whether the appellants' disclosure, considering the level of ordinary skill in the art as of the date of the appellants' application, would have enabled a person of such skill to make and use the appellants' invention **without undue experimentation**. The threshold step in resolving this issue as set forth supra is to determine whether the examiner has met his burden of proof by advancing acceptable reasoning inconsistent with enablement.

In our opinion the examiner has not met his burden of proof by advancing acceptable reasoning inconsistent with enablement for the following reasons.

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<sup>2</sup> The appellants may attempt to overcome the examiner's doubt about enablement by pointing to details in the disclosure, but may not add new matter. The appellants may also submit factual affidavits under 37 CFR § 1.132 or cite references to show what one skilled in the art would have known at the time of filing the application.



Factors which must be considered in determining whether a disclosure would require undue experimentation include (1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims. See In re Wands, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988) citing Ex parte Forman, 230 USPQ 546, 547 (Bd. Pat. App. & Int. 1986).

Our review of the record reveals that the examiner has not applied the above-noted factors to determine that undue experimentation would be required to practice the invention or provided an explanation that clearly supports such a determination. Since the examiner has not weighed the factors, the examiner's conclusion of nonenablement cannot be sustained.

Furthermore, it is our view that it would not require undue experimentation to practice the invention as set forth in claim 9 under appeal. In that regard, we agree with the appellants that a person skilled in the art would know to mix the anti-adhesive additive with the claimed hard plastic material before the backing ring is molded. In addition, it is our opinion that in this art the selection of a suitable material for use as the anti-adhesive additive to be added to hard plastic material before the backing ring is molded does not require undue experimentation. Thus, we conclude that one skilled in the art could make and use the claimed invention from the disclosure without undue experimentation.

For the reasons set forth above, the decision of the examiner to reject claim 9 under 35 U.S.C. § 112, first paragraph, is reversed.

**The anticipation rejection**

We will not sustain the rejection of claim 9 under 35 U.S.C. § 102(b).

To support a rejection of a claim under 35 U.S.C. § 102(b), it must be shown that each element of the claim is found, either expressly described or under principles of inherency, in a single prior art reference. See Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983), cert. denied, 465 U.S. 1026 (1984).

In this rejection, the examiner determined (answer, p. 4) that each element of claim 9 is found, either expressly described or under principles of inherency, in Paykin. Specifically, as to the claimed step of "incorporating an anti-adhesive additive in the hard plastic material of the backing ring to prevent the backing ring from attaching to the polymeric material that the sealing ring is made of," the examiner stated that "[s]ince Paykin discloses that the sealing ring will not bond to the backing ring (col. 5, line 43), the backing ring is considered to include an anti-adhesive material to the same degree as claimed and disclosed."

The appellants argue (brief, pp. 5-6) that Paykin does not teach or suggest the incorporation of an anti-adhesive additive to the plastic material of the backing ring to prevent the backing ring from attaching to the polymeric material that the sealing ring is made of.

It is well-settled that under principles of inherency, when a reference is silent about an asserted inherent characteristic, it must be clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Continental Can Co. v. Monsanto Co., 948 F.2d 1264, 1268, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991). As the court stated in In re Oelrich, 666 F.2d 578, 581, 212 USPQ 323, 326 (CCPA 1981)(quoting Hansgirc v. Kemmer, 102 F.2d 212, 214, 40 USPQ 665, 667 (CCPA 1939)):

Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient. [Citations omitted.] If, however, the disclosure is sufficient to show that the natural result flowing from the operation as taught would result in the performance of the questioned function, it seems to be well

settled that the disclosure should be regarded as sufficient.

In our view, Paykin does not disclose incorporating an anti-adhesive additive in the material forming his backup or reinforcing ring 46. While Paykin does disclose that the material forming his backup or reinforcing ring 46 does not bond to the elastomeric material that the sealing ring 26 is made of, this disclosure is insufficient to met the above-quoted limitation of claim 9.<sup>3</sup>

Since all the limitations of claim 9 are not disclosed in Paykin for the reasons set forth above, the decision of the examiner to reject claim 9 under 35 U.S.C. § 102(b) is reversed.

#### **The obviousness rejection**

We sustain the rejection of claims 6 to 8 under 35 U.S.C. § 103.

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<sup>3</sup> We note that a rejection of claim 9 under 35 U.S.C. § 103 is not before us in this appeal.

Claim 6 on appeal reads as follows:

In a process for manufacturing a radial shaft-sealing ring comprising a sealing ring made of a polymeric material with sealing properties, whereby the sealing ring has at least one lip that rests on the shaft to be sealed and rests against a backing ring at the side not subject to pressure, whereby the sealing ring is permanently fastened to a reinforcing ring having an angle-shaped profile with a radially inward extending leg that at least partially overlaps and rests directly against the backing ring, the process including the steps of inserting both the reinforcing ring and the backing ring in a tool cavity, filling the remaining space in the tool cavity with a raw polymeric sealing material in the form of a liquid or paste, allowing the polymeric sealing material to solidify and bond to the reinforcing ring and removing the radial shaft-sealing ring from the cavity;

the improvement comprising the step of applying a coating of anti-adhesive material to the surface of the backing ring prior to insertion in the tool cavity to prevent it from attaching to the polymeric material that the sealing ring is made of.

The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art. See In re Young, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991) and In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981).

In this rejection, the examiner determined (answer, p. 4) that Paykin discloses the claimed process except for "the step of applying a coating of anti-adhesive material to the surface of the backing ring prior to insertion in the tool cavity to prevent it from attaching to the polymeric material that the sealing ring is made of." The appellants do not contest this determination. The examiner then found that it was old and well known to use an anti-adhesive during molding as taught by Marquette. The examiner then concluded (answer, p. 5) that it would have been obvious to modify Paykin, by adding an anti-adhesive to the backing ring as taught by Marquette to prevent Paykin's backup or reinforcing ring 46 from bonding to the elastomeric material that the sealing ring 26 is made of.

The appellants argue (brief, pp. 5-7) that such a modification of Paykin would not have been obvious at the time the invention was made to a person having ordinary skill in the art. We do not agree for the reasons that follow.

First, while the appellants are correct that Paykin does not teach the application of an anti-adhesive material to the

surface of the backing ring to prevent it from attaching to the polymeric material that the sealing ring is made of, Paykin does teach preventing the surface of the backing ring from bonding to the elastomeric material of the sealing ring. With this teaching of Paykin, it is our belief that a person having ordinary skill in the art at the time the invention was made would have looked to other art, such as Marquette, to determine how to accomplish this result. Thus, we find ourselves in agreement with the examiner that it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have preventing the surface of Paykin's backing ring from bonding to the elastomeric material of the sealing ring by coating the surface of the backing ring with a lubricant as suggested and taught by Marquette to prevent adhesion of the surfaces during vulcanization.

Second, it is our view that Paykin does not "teach away" from the claimed invention. As to the specific question of "teaching away," our reviewing court in In re Gurley, 27 F.3d 551, 553, 31 USPQ2d 1130, 1131 (Fed. Cir. 1994) stated:



A reference may be said to teach away when a person of ordinary skill, upon [examining] the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.

In this case, Paykin discloses two embodiments, one embodiment where the backup or reinforcing ring 46 bonds to the elastomeric material that the sealing ring 26 is made of and the other embodiment where the backup or reinforcing ring 46 does not bond to the elastomeric material that the sealing ring 26 is made of. Paykin's teaching of two embodiments, even if the bonding embodiment was preferred does not constitute a teaching away since even a teaching of a preferred embodiment does not constitute a teaching away. See In re Susi, 440 F.2d 442, 169 USPQ 423 (CCPA 1971) and In re Dunn, 349 F.2d 433, 146 USPQ 479 (CCPA 1965).

For the reasons set forth above, the decision of the examiner to reject claim 6 under 35 U.S.C. § 103 is affirmed.

The appellants have grouped claims 6 to 8 as standing or falling together.<sup>4</sup> Thereby, in accordance with 37 CFR § 1.192(c)(7), claims 7 and 8 fall with claim 6. Thus, it follows that the decision of the examiner to reject claims 7 and 8 under 35 U.S.C. § 103 is also affirmed.

#### CONCLUSION

To summarize, the decision of the examiner to reject claim 9 under 35 U.S.C. § 112, first paragraph, is reversed; the decision of the examiner to reject claim 9 under 35 U.S.C. § 102(b) is reversed; and the decision of the examiner to reject claims 6 to 8 under 35 U.S.C. § 103 is affirmed.

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<sup>4</sup> See page 5 of the appellants' brief.

No time period for taking any subsequent action in  
connection with this appeal may be extended under 37 CFR  
§ 1.136(a).

AFFIRMED-IN-PART

NEAL E. ABRAMS	)	
Administrative Patent Judge	)	
	)	
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	)	BOARD OF PATENT
IRWIN CHARLES COHEN	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
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JEFFREY V. NASE	)	
Administrative Patent Judge	)	

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